and *A. cardamines* was more abundant than usual in the spring.

The high spots of the season for us however were seeing four species of the small fritillaries flying together in Devon, and the fine showing of *H. comma* on a Hampshire down.

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A Guide to Sending Insects for Identification

By V. C. Kapoor

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The identification of insects is fundamental to all research and extension activities in entomology. It can be done easily provided the insect is in a good shape. The observance of the following points will ensure the delivery of the insects in their proper conditions to the insect taxonomist.

1. The insects should be kept in a wooden box (size according to requirement) (fig. 1). Care should be taken that the cork sheet is firmly attached to the bottom of the box. The pins should be firmly fixed on the cork sheet. The bigger speci-

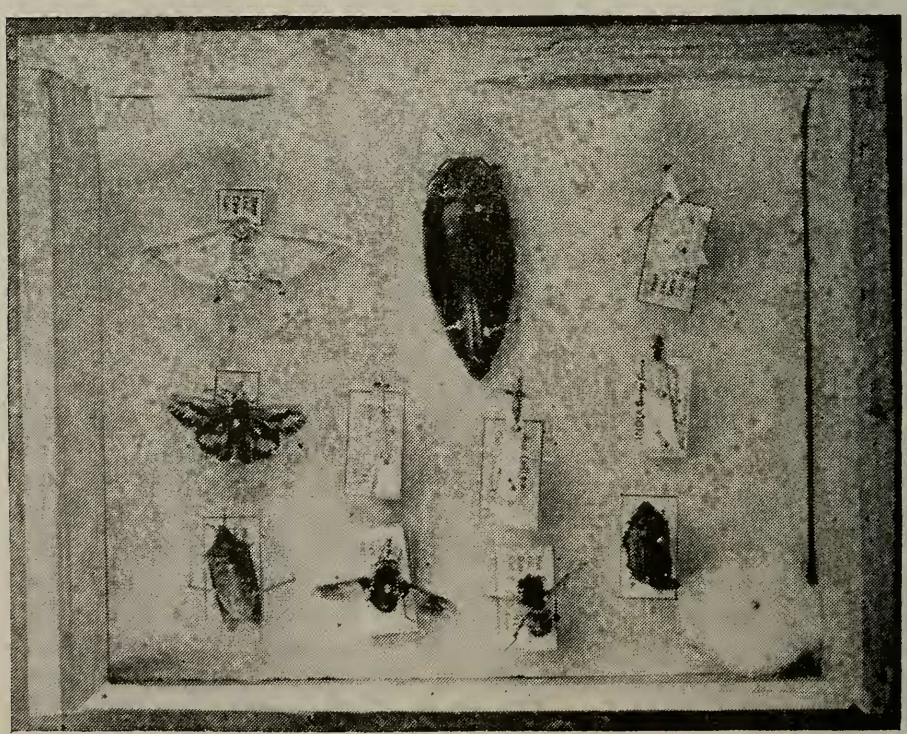

Fig. 1 shows the correct way of pinning the insects in the insect container.

mens should be supported on either side with big pins. This will save these large specimens and also other specimens from being damaged due to swinging. The specimens with "double mounts" should have one additional supporting pin through the tip of pitch a little behind the specimen and in case of specimens mounted with "pointing process" two supporting pins, one on either of the triangle, should be fixed to prevent circular motion. This saves the insects from damage due to swinging of the triangle, or pitch on the supporting pin.

2. A sheet of cardboard cut to fit the inside of the box should be kept over the top of the pinned specimens and the space between this and the lid of the box should be filled with cotton.

3. At least 5-7 cm space should be left in between the insect box and outer container of thick cardboard. The space should be filled up with packing material like wood shavings, crumpled newspaper, etc. The packing should be a little loose to minimise the risk of external shocks from being transmitted directly to the insect box.

4. If there are 2 or more such boxes they all should be tied together and then put in the outer container. This will avoid them from getting damaged due to jarring.

5. The address of the sender should be written on the insect box as well as on the outer container.

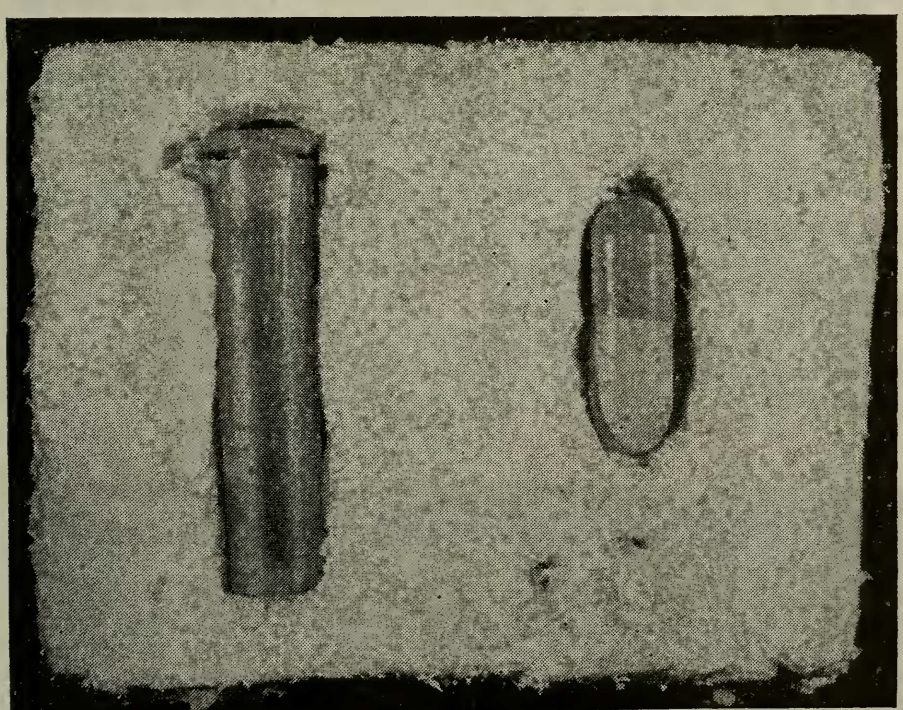

Fig. 2 shows the plastic tube and gelatin capsule placed in the thermocole piece.

6. Instead of directly pinning in the insect box, the specimens can also be sent in gelatin capsules which are easily available at medical shops, and in plastic vials (fig. 2). Small dry insects like jassids and small beetles can be sent in capsules of 2-3 mm length. The capsules are then placed in between the thermocole sheets. Some insects like termites, aphids and small diptera can be sent in 70 per cent. alcohol in small plastic vials (fig. 2). Moths and butterflies should not be sent in alcohol.

Small to medium-sized insects can also be sent in large glass or plastic vials normally of 8 mm length and 3 mm diameter (fig. 3). One or two insects are first pinned to the small cork sheet which is fixed to the cork of the glass vial by two ordinary pins. The cork with the cork sheet is then put in the vial. A narrow passage should be made on one side of the cork and should be plugged with cotton for aeration to avoid growth of mould. A pin is fixed to the end of the cork sheet in such a way that it touches the opposite walls of the glass tube by both of its ends. This keeps the cork sheet in fixed position.

The vials should be arranged flat in a row with enough packing material in between and also the vials and sides of the box. Presence of enough packing material will minimise the risk of breakage of the glass vials due to their striking with each other or with the box. If there are now more vials, second row should be arranged similarly with enough packing materials in order to avoid direct contact with each other.

7. The packing must be labelled as "Fragile", "Handle with Care" to minimize the risk of mishandling by postal services.

8. The insect boxes before packing must be fumigated. The most effective fumigant can be prepared as below:

10 gm napthalene powder+50 ml petrol+0.1 ml carbolic acid.

Loose napthalene crystals should not be kept, as they may spoil the specimens.

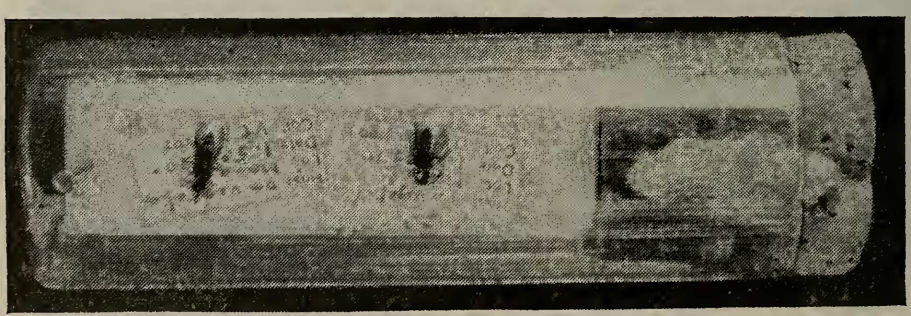

Fig. 3 shows the method of sending insects in glass vials.

9. The vials should not be placed alongwith insects. If this is absolutely necessary, the vial should be fixed with tape on the outside of the box. It is better to put the vial in a separate package.

10. "Parcel post": When sending abroad, it is advantageeous to make a small packet and send it by air mail. Do write "Dried insects for scientific study". On top of the envelope write the following "please don't stamp here", in order to avoid damage due to hard stamping on the position of the envelope exactly below which the specimens lie. By air the parcels go as first class mail usually along with similar small packets and thus will be saved from bumps which would be more when sent by surface mail due to heavy weight. To facilitate quick service from customs, the statement "No commercial value" should be written on the top of the box.

The methods for pinning, setting and labelling have not been discussed here. For this the book entitled "Collecting, Preserving and Studying Insects", by Harold Oldrod may be consulted. For addresses of taxonomists, the book entitled "Zoological Taxonomists of the World", by E. Richard and R. M. Blackwelder, is very useful. For pinning wet dipterous specimens the method of Sabrowsky (1966, *Bull. Ent. Soc. Am.*, **12** (3): 349), may be consulted.

Collecting Again in South Australia

By Rev. P. C. Hawker, F.S.A.

I arrived in Sydney a few days before War began in 1939 and was advised to train for the Anglican Ministry in Adelaide and arrived there in February 1940. During the next 3 years I did some collecting but lack of time and transport did not make this easy.

This year I am again out in South Australia, this time on exchange. The Rector of Brighton has become the Vicar of S. Botolph's Lincoln, and the Lincolnshire Vicar Rector of the seaside suburb some 7 miles from the centre of Adelaide.

Again time is rather against me and these notes are mainly about collecting in the Rectory Garden. Perhaps here it should be noted that Dr Waterhouse's What butterfly is that? (1932) has been my handbook.

The only swallowtail seen has been *Papilio anactus* (Macleay). This I had never seen in South Australia before but Waterhouse notes that it was spreading along the Murray River from the Eastern States and he had seen one in the street of Adelaide. I have seen several in our garden. First seen 25.3.73.

The English *Pieris rapae* is now abundant (alas). It is not mentioned in my edition of Waterhouse. As far as I can recall (having lost my notes made at the time) the first one I saw during my last visit was in 1943. After that it got increasingly more plentiful: or so I remember on my brief visit from Kal-